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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,574	03/18/2004	Christopher R. Karabin	95,872	4133

7590 08/27/2004

Office of Counsel Code OC4  
Naval Surface Warfare Center  
Indian Head Division  
101 Strauss Ave., Bldg. D-31  
Indian Head, MD 20640-5035

EXAMINER

ISSING, GREGORY C

ART UNIT	PAPER NUMBER
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3662

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/807,574

Applicant(s)

KARABIN ET AL.

Examiner

Gregory C. Issing

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>20040318</u> . | 6) <input type="checkbox"/> Other: ____.  |

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Stotts et al.

3. Stotts et al disclose a system that determines the location of objects that impact the ocean surface including a plurality of sonobuoys equipped with GPS receivers that were used to locate their positions accurately and were arranged in an area, see Figure 1, which would contain the source impacts (Introduction). Time delay analysis was used in the localization of the impact source using a time of arrival matching scheme. Differential GPS was utilized to provide increased accuracy positioning of the sonobuoys (p. 577, col.1).

4. Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Landis NAVSEA News Wire.

5. NAVSEA News Wire (12/13/2002) discloses the Virtual At-Sea Training (VAST) system and its use of the Integrated Maritime Portable Acoustic Scoring and Simulator (IMPASS). The disclosed system appears to set forth the identical system which is being claimed. The document was published more than a year prior to the filing date of the instant application.

6. Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Dunaway. 'Virtual At Sea Training (VAST)' presented by Capt. Dunaway at the National Defense Industrial Association 7<sup>th</sup> Annual Artillery symposium dated 19 June 2002 discloses the claimed system and, more particularly, page 4 shows the overall system design including the acoustic buoy scoring system and page 5 shows the specifics of the acoustic buoy scoring system using IMPASS. As this appears to be the claimed subject matter, all of the claimed limitations are deemed inherent.

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7. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by either one of Erwin ("Congress Ups Funding For Live-Fire Testing") and Navy Newstand ("Navy and Air Force Hit Virtual Bull's Eye at Sea").

Each of Erwin ("Congress Ups Funding for Live-Fire Testing" published 11/2001) and Navy Newstand ("Navy and Air Force Hit Virtual Bull's Eye at Sea" published 11/17/02) disclose the use of the Integrated Maritime Portable Acoustic Scoring and Simulation (IMPASS) system wherein a plurality of sonobuoys equipped with acoustic sensors and GPS receivers are arranged to detect the impact of practice missiles on the ocean surface. METOCEAN discloses the particulars of the Mobile Acoustic Scoring System (MASS) regarding the sonobuoy design which is used in IMPASS in the product data sheet and the general information sheet. In view of the fact, that the claimed device appears to correspond directly with the instantly disclosed device, all of the features of the claimed subject matter are deemed to be taught.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zacharias (published 3/20/03) discloses the VAST system and the deployment of IMPASS thereof.

Paquette et al disclose a surface impact location system for weapons training as shown in Figure 6 and including a deployment of surface buoys in a regular geometric pattern within the target area which measure acoustic impulses resulting from impact on the ocean surface. Since the geographic positions of the buoys and hence the hydrophones detecting the acoustic impulses are known, acoustic multilateration techniques can be applied to determine the location of impact.

(silent wrt GPS on buoys)

Westerfield discloses a system of sonobuoys for testing of ballistic missile systems which require accurate determination of the splash point including a plurality of GTDs 9 which include a GPS receiver as well as an acoustic transmitter and receiver. The specification of Westerfield

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discloses the use of the acoustic transmitter and receiver of the GTDs for the purpose of locating the buoys 3 which are used to determine the position of the impact.

Gustafson discloses a method and system for monitoring a sea area including a plurality of listening devices A1-A3 comprising respective hydrophones and transmitter/receivers and a master station M1 for collecting the listening devices' measurements so as to provide a plurality of time difference equations that define the location of a source U. In order to determine the absolute position of the source U, the locations of the listening devices are required; in the embodiment disclosed therein, an ID message is transmitted from each listening device which is received directly at the master station and relayed from a plurality of relay stations M2/M3.

Product Data Sheet for Mobile Acoustic Scoring System (MASS) from METOCEAN.

General Information Sheet for the Mobile Acoustic Scoring System (MASS) from METOCEAN.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory C. Issing whose telephone number is 703-306-4156. The examiner can normally be reached on Monday - Thursday 6:00 AM- 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on 703-306-4171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Gregory C. Issing

**GREGORY C. ISSING  
PRIMARY EXAMINER**